

# Sound: Pitch and Volume Hands-On Activities

Date performed: March 31<sup>st</sup>, 2010

The purpose of this activity is to give students a hands-on way of reviewing sound, focusing on pitch and volume. The students will be taking their TCAP's and this was something my teacher wanted me to review with them.

GLE 0307.11.3 Investigate how the pitch and volume of a sound can be changed.

## **Activities (explanation):**

Website used with the promethean board:

[http://www.bbc.co.uk/schools/ks2bitesize/science/physical\\_processes/changing\\_sounds/play.shtml](http://www.bbc.co.uk/schools/ks2bitesize/science/physical_processes/changing_sounds/play.shtml) This website is an excellent resource for teachers who want the students to be involved while learning. My students and teacher all loved this website. I had the students take turns coming up to the promethean board doing the different activities on this particular website, such as changing the pitch and volume levels on a glass bottle, drum, or guitar. The students had no problem understanding the difference between pitch and volume after this activity. This activity specifically deals with pitch and volume.

Sound boxes – Different size shoeboxes with multiple rubber bands wrapped around the shoebox. The students pluck the rubber bands placed around the shoebox. Each band will make a different pitch. They can notice how rubber bands placed in the middle usually make a lower pitched sound compared to those placed towards the ends of the shoe box.

Pitch blowers – Materials needed: 4 straws per student, clay, cardstock paper, craft glue.

The teacher needs to prepare these before class. I prepared these at home the night before. It takes a while to make them, and you have to let them dry. But the student's loved this activity! First you need to cut strips of cardstock about 3inch x 1inch. Take 4 straws (I used different colored straws) and cut them as if they were staggering. So you start out with one 5 inches long, cut the next either 1 inch or ½ shorter, the next 1 inch or ½ shorter than that one, and the same with the last. Place pieces of clay on the ends that were cut, make sure to completely cover the hole. After this, glue the straws on the strips of cardstock. Align the straws' even ends on the cardstock (this is the part you will glue.) When you hand them out to the students tell them to blow in each one, being sure to notice the different pitch each straw gives off. Why do they think this is? This activity went over really well!

**ASSESSMENT:** I used formal and informal assessments. Of course the teacher is assessing the students while they are participating in the website activity. You can clearly see whether a student got it right or wrong. I walked around the classroom while they did the sound box and pitch blower activities making sure they were using them properly and discussing with each other what they were discovering. After the activities I had the students complete an activity sheet. The students did extremely well on the activity sheet. After participating in the internet activity, they really seemed to grasp the concept.

# Changing sounds

Name Kiya

Arrange each set of instruments in order of pitch by writing 1, 2 or 3 in the box below each picture (1 being the instrument that would make the lowest-pitched sound).



1



3



2



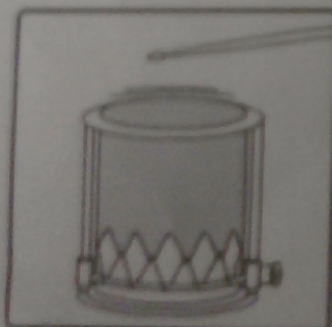
2



1



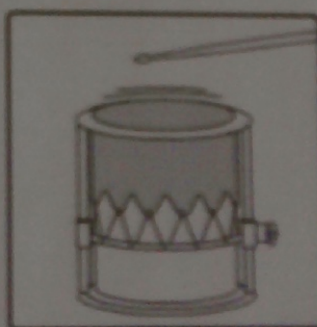
3



3



1



2

## **EVALUATION:**

I think these activities worked excellent. The thing I would change next time was the sound boxes. Either my rubber bands were too tight, or the shoeboxes were not strong or thick enough. The boxes started to warp a little. But overall, the students had an excellent time with this. Using all three activities, overall it took about an hour to complete everything. I think any teacher going over pitch and volume should definitely use these activities. They were all a complete success in my classroom!



Students working on their activity sheet.





